Claims:

1) A method of providing operational power to a battery powered utilization device, said method comprising:
   a) monitoring operational battery pack characteristics;
   b) storing said characteristics in an electronic memory device contained within said battery pack as battery pack data;
   c) monitoring present battery pack conditions;
   d) retrieving said battery pack data;
   e) communicating said present battery pack conditions and said battery pack data to said battery powered utilization device; and
   f) controlling by said portable utilization device, operational discharge of the battery pack.

2) The method of claim 1 wherein the step of controlling comprises powering down circuitry when it is not needed.

3) The method of claim 2 wherein the circuitry is located in the portable utilization device.

4) The method of claim 2 wherein the circuitry comprises at least one ROM.

5) The method of claim 2 wherein the circuitry comprises battery charge circuitry.

6) The method of claim 2 wherein the circuitry comprises battery deep discharge circuitry.

7) The method of claim 1 wherein the step of controlling comprises entering a low power mode.

8) The method of claim 7 wherein at least a portion of the portable utilization device operates using a standby voltage lower than a normal operating voltage.

9) The method of claim 7 wherein run speed is reduced.

10) The method of claim 7 wherein at least one function is turned off when not needed.

11) The method of claim 10 wherein a processor clock is stopped.

12) The method of claim 7 wherein a processor is powered down.

13) The method of claim 7 wherein a screen backlight is shut off.

14) The method of claim 7 wherein power is removed from at least one peripheral device.

15) The method of claim 1 wherein the step of controlling comprises deselecting at least one battery of the battery pack.

16) A method of providing operational power to a portable utilization device, said method comprising:

a) storing in an electronic memory device contained within a battery pack, battery pack data related to battery pack characteristics;

b) coupling the battery pack with the portable utilization device;

c) monitoring present battery pack conditions;

d) retrieving the battery pack data;

e) communicating information based on the present battery pack conditions and based on the battery pack data to processing circuitry of the portable utilization device; and

f) controlling by said portable utilization device, operational discharge of the battery pack.

17) The method of claim 16 wherein the step of controlling comprises powering down circuitry when it is not needed.

18) The method of claim 17 wherein the circuitry is located in the portable utilization device.

19) The method of claim 17 wherein the circuitry comprises at least one ROM.

20) The method of claim 17 wherein the circuitry comprises battery charge circuitry.

21) The method of claim 17 wherein the circuitry comprises battery deep discharge circuitry.

22) The method of claim 16 wherein the step of controlling comprises entering a low power mode.

23) The method of claim 22 wherein at least a portion of the portable utilization device operates using a standby voltage lower than a normal operating voltage.

24) The method of claim 22 wherein run speed is reduced.

25) The method of claim 22 wherein at least one function is turned off when not needed.

26) The method of claim 25 wherein a processor clock is stopped.

27) The method of claim 22 wherein a processor is powered down.

28) The method of claim 22 wherein a screen backlight is shut off.

29) The method of claim 22 wherein power is removed from at least one peripheral device.

30) The method of claim 16 wherein the step of controlling comprises deselecting at least one battery of the battery pack.

31) A method of providing operational power to a portable utilization device, said method comprising;

a) coupling a battery pack with an electronic memory system and with processing circuitry of the portable utilization device;

b) incorporating in the electronic memory system, battery pack data related to battery pack characteristics of the battery pack;

c) monitoring present battery pack conditions;

d) retrieving the battery pack data;

e) communicating information based on the present battery pack conditions and based on the battery pack data to processing circuitry of the portable utilization device; and

f) controlling by said portable utilization device, operational discharge of the battery pack.

32) The method of claim 31 wherein the step of controlling comprises powering down circuitry when it is not needed.

33) The method of claim 32 wherein the circuitry is located in the portable utilization device.

34) The method of claim 32 wherein the circuitry comprises at least one ROM.

35) The method of claim 32 wherein the circuitry comprises battery charge circuitry.

36) The method of claim 32 wherein the circuitry comprises battery deep discharge circuitry.

37) The method of claim 31 wherein the step of controlling comprises entering a low power mode.

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38) The method of claim 37 wherein at least a portion of the portable utilization device operates using a standby voltage lower than a normal operating voltage.

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39) The method of claim 37 wherein run speed is reduced.

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40) The method of claim 37 wherein at least one function is turned off when not needed.

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41) The method of claim 40 wherein a processor clock is stopped.

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42) The method of claim 37 wherein a processor is powered down.

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43) The method of claim 37 wherein a screen backlight is shut off.

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44) The method of claim 37 wherein power is removed from at least one peripheral device.

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45) The method of claim 31 wherein the step of controlling comprises deselecting at least one battery of the battery pack.

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